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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/537,878	06/07/2005	Joannes Gregorius Bremer	NL 021260	8410

24737 7590 11/29/2006

PHILIPS INTELLECTUAL PROPERTY & STANDARDS  
P.O. BOX 3001  
BRIARCLIFF MANOR, NY 10510

EXAMINER

SHAH, SAMIR M

ART UNIT PAPER NUMBER

2856

DATE MAILED: 11/29/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/537,878	<b>Applicant(s)</b> BREMER ET AL.	
	<b>Examiner</b> Samir M. Shah	<b>Art Unit</b> 2856	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 02 October 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Response to Appeal Brief*

1. The appeal brief filed on 10/02/2006 is acknowledged. However, in view of the new grounds of rejection applied below, the finality of the previous Office Action is hereby withdrawn and claims 1-13 are examined as follows:

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 3, 4-7, 9-11 and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Depeursinge et al. (US Patent 6,201,476 B1 henceforth “Depeursinge”).

(a) As to claims 1, 3 and 9, Depeursinge discloses a method and a “device for monitoring the activity of a person”/monitoring device (1), comprising:

a measurement unit including (unit 7 and) a plurality of motion sensors/accelerometers (2a-2c) operable to produce respective sensor signals indicative of motion experienced thereby (figures 1, 3; column 2, lines 33-67; column 3, lines 1-29); and

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a processor (including units 8, 9) operable to receive the sensor signals from the measurement unit (unit 7 and accelerometers (2a-2c)) and to process the sensor signals in accordance with a predetermined method (figures 1, 3; column 3, lines 30-67; column 4, lines 1-7),

characterized in that the activity monitor/monitoring device (1) (including processor (units 8, 9)) is operable to monitor and process the sensor signals discontinuously in time (column 4, lines 7-11).

(b) As to claims 4 and 13, Depeursinge's processor (including units 8, 9) is operable to monitor the sensor signals in turn because it would be impossible to simultaneously monitor the plurality of sensor signals received by the processor (8, 9).

(c) As to claim 5, Depeursinge discloses the processor (including units 8, 9) being operable to enter a monitoring mode of operation in which the processor (8, 9) monitors the sensor signals and to enter a standby mode of operation in which no monitoring takes place (column 4, lines 7-11).

(d) As to claims 6 and 10, it is inherent for Depeursinge's processor (8, 9) to enter the monitoring mode and the standby mode alternately because it is impossible for the processor (8, 9) to enter both the monitoring mode and the standby mode simultaneously or at the same time.

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(e) As to claims 7 and 11, Depeursinge teaches “in order to save power consumption, it may be contemplated to put units 8 and 9 in a standby mode of operation, if no dynamic changes in the acceleration signals are detected”. Therefore, since the respective time periods for the monitoring and standby modes depend on dynamic changes in the acceleration signals, it is inherent that the respective time periods are variable.

4. Claims 1, 3, 5-7, and 9-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Randell et al. (“Context Awareness by Analysing Accelerometer Data”, Cliff Randell and Henk Muller henceforth “Randell”).

(a) As to claims 1 and 9, Randell discloses a method and a device for monitoring the activity of a person, comprising:

a measurement unit including a plurality of motion sensors (accelerometer, microphone) operable to produce respective sensor signals indicative of motion experienced thereby (section 2 - Architecture, 2<sup>nd</sup> paragraph; section 3 - Data Processing, lines 16-19; section 4 - Application - the Well-Behaved Wearable, 4<sup>th</sup> paragraph); and

a processor operable to receive the sensor signals from the measurement unit and to process the sensor signals in accordance with a predetermined method (section 2 - Architecture, 2<sup>nd</sup> paragraph; section 3 - Data Processing, 2<sup>nd</sup> paragraph),

characterized in that the activity monitor is operable to monitor and process the sensor signals discontinuously in time (section 2 - Architecture, 2<sup>nd</sup> paragraph).

(b) As to claim 3, Randell discloses the processor being operable to monitor the sensor signals discontinuously in time (section 2 - Architecture, 2<sup>nd</sup> paragraph).

(c) As to claim 5, Randell discloses the processor being operable to enter a monitoring/powered-up mode of operation in which the processor monitors the sensor signals and to enter a standby/switched-off mode of operation in which no monitoring takes place (section 2 - Architecture, 2<sup>nd</sup> paragraph).

(d) As to claims 6 and 10, it is inherent for Randell's processor to enter the monitoring mode and the standby mode alternately because it is impossible for the processor to be powered-up and switched-off simultaneously or at the same time.

(e) As to claims 7 and 11, Randell teaches "[i]n a steady state the main processor will be switched off and the sensors are the only active parts. The sensors are to be programmed by the main processor to power-up the main processor when an interesting situation arrives." Therefore, since the respective time periods for the monitoring/powered-up and standby/switched-off modes depend on an "interesting situation", it is inherent that the respective time periods are variable.

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5. Claims 1 and 3-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Choi (US Patent 5,317,304 henceforth "Choi").

(a) As to claims 1 and 9, Choi discloses a method and a device for monitoring the activity of a person, comprising:

a measurement unit including a plurality of motion sensors (21, 22)/motion detecting means (22) operable to produce respective sensor signals indicative of motion experienced thereby (figure 5; column 4, lines 39-47); and

a processor/microprocessor (24) operable to receive the sensor signals from the measurement unit and to process the sensor signals in accordance with a predetermined method (figure 5; column 4, lines 52-68; column 5, lines 1-2),

characterized in that the activity monitor is operable to monitor and process the sensor signals discontinuously in time (column 5, lines 3-15; column 6, lines 28-61).

(b) As to claims 3, 4 and 13, Choi discloses the processor/microprocessor (24) being operable to monitor the sensor signals discontinuously in time and in turn (column 5, lines 3-15; column 6, lines 28-61).

(c) As to claim 5, Choi discloses the processor/microprocessor (24) being operable to enter a monitoring/active mode of operation in which the processor/microprocessor (24) monitors the sensor signals and to enter a standby mode of operation in which no monitoring takes place (column 5, lines 3-15; column 6, lines 28-61).

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(d) As to claims 6 and 10, Choi discloses the processor/microprocessor (24) being operable to enter the monitoring/active mode and the standby mode alternately, for respective time periods (column 5, lines 3-15; column 6, lines 28-61).

(e) As to claims 7 and 11, Choi discloses the respective periods being variable and being enforced by the main control process (MCP) (column 6, lines 28-33).

(f) As to claims 8 and 12, Choi discloses the time period for the standby mode being 95% and the time period for the monitoring/active mode being 5% and thus the respective time periods are fixed.

### ***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining

obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.



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7. Claims 1-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Verplaetse et al. (US Patent Application Publication 2003/014660 A1 henceforth "Verplaetse").

(a) As to claims 1 and 9, Verplaetse discloses a method and a device for monitoring activity, comprising:

a measurement unit including a "multi-axis MEMS accelerometer" (36) operable to produce sensor signals indicative of motion experienced thereby (figure 3; paragraph 0032, lines 1-6); and

a processor (38) operable to receive the sensor signals from the measurement unit and to process the sensor signals in accordance with a predetermined method (figure 3; paragraph 0032, lines 6-19),

characterized in that the activity monitor is operable to monitor and process the sensor signals discontinuously in time (paragraph 0036).

As to claims 1 and 9, Verplaetse does not expressly disclose a plurality of motion sensors.

However, Verplaetse uses a multi-axis accelerometer (36) which is functional to sense the acceleration in at least two distinct axes. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a plurality of motion sensors/accelerometers for sensing the acceleration in at least two distinct axes, as required by Verplaetse, instead of a single multi-axis accelerometer to save money.

(b) As to claim 2, Verplaetse discloses that the measurement unit (including multi-axis accelerometer (36)) is operable to output the sensor signals discontinuously in time (figure 3; paragraph 0036).

(c) As to claim 3, Verplaetse discloses a power management circuit (56) designed to periodically power down accelerometer (36) and processor (38) to save power. Therefore, when the accelerometer (36) and processor (38) are powered down, the processor (38) will not be monitoring any sensor signals. Therefore, Verplaetse's processor (38) is operable to monitor the sensor signals discontinuously in time (figure 3; paragraph 0036).

(d) As to claims 4 and 13, Verplaetse discloses the processor (38) being operable to monitor the sensor signals (X and Y) in turn (paragraph 0045).

(e) As to claim 5, Verplaetse discloses that the processor (38) is operable to enter a monitoring mode of operation/full theft detection mode in which the processor (38) monitors the sensor signals and to enter a standby/powered-down mode of operation in which no monitoring takes place (paragraphs 0036, 0044).

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(f) As to claims 6 and 10, Verplaetse discloses the processor (38) being operable to enter the monitoring/full theft detection mode and the standby/powered-down mode alternately, for respective time-periods (paragraph 0036).

(g) As to claims 7 and 11, Verplaetse discloses "processor 38 will stay powered and will keep accelerator 36 powered and processor 38 will screen for theft-type motion until no motion is sensed". Therefore, since the powering down of the accelerometer (36) and the processor (38) is dependent upon the sensing of motion, it is inherent that the respective time periods for the monitoring/full theft detection and standby/powered-down modes are variable (paragraph 0036).

(h) As to claims 8 and 12, Verplaetse discloses the respective time periods for the monitoring/full theft detection and standby/powered-down modes being fixed to 500 ms, being implemented by a power management circuit (56) (paragraphs 0036, 0044, 0046).

### ***Conclusion***


8. The prior art made of record and not relied upon, cited in the attached 892 form, is considered pertinent to applicant's disclosure.


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9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Samir M. Shah whose telephone number is (571) 272-2671. The examiner can normally be reached on Monday-Friday 9:30 am to 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron Williams can be reached on (571) 272-2208. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

10. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
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